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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,097	06/04/2002	Andrew B Holmes	29610/206987	8312
7590	09/27/2004			
Marshall Gerstein & Borun 233 S Wacker Drive 6300 Sears Tower Chicago, IL 60606-6402			EXAMINER YAMNITZKY, MARIE ROSE	
			ART UNIT 1774	PAPER NUMBER

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/048,097

Applicant(s)

HOLMES ET AL

Examiner

Marie R. Yamnitzky

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002 and 04 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-45 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted:

Group I, claim(s) 1-19, drawn to a method for making a polymer or oligomer;

Group II, claim(s) 20-38, drawn to a polymer or oligomer;

Group III, claim(s) 39-43, drawn to a device comprising a polymer or oligomer;

Group IV, claim(s) 44, drawn to a light-emissive material comprising a polymer or oligomer;

Group V, claim(s) 45, drawn to a method of making a device comprising a polymer or oligomer.

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

A polymer or oligomer comprising a substituted aromatic or heteroaromatic group is known in the art, therefore there is no special technical feature common to all the claims. For example, see Andersson et al. *Synthetic Metals* 85 (1997), pp. 1275-1276 (cited by applicant).

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

(A) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein

A is C and n is 0, and wherein

(i) X and Y are the same and each is (a) hydroxy or alkoxy, (b) alkoxyalkyl, (c) amide, (d) halide, (e) haloalkyl, (f) amino, (g) aminoalkyl, (h) carboxylic acid ester, (i) urethane or carbamate, (j) sulphonamide, (k) sulphurylalkyl or (l) carbamide or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(B) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein

A is O and n is 0, and wherein

(i) X and Y are the same and selected from (a)-(l) above, or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(C) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein

A is S and n is 0, and wherein

(i) X and Y are the same and selected from (a)-(l) above, or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(D) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein

A is NR and n is 0, and wherein

(i) X and Y are the same and selected from (a)-(l) above, or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(E) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein

each of A and B is C and n is 1, and wherein

(i) X and Y are the same and selected from (a)-(l) above but is not a polymer or oligomer having either general formulae shown in claim 27, or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(F) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein each of A and B is NR and n is 1, and wherein

(i) X and Y are the same and selected from (a)-(l) above, or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(G) a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein one of A and B is C, the other of A and B is NR, and n is 1, and wherein

(i) X and Y are the same and selected from (a)-(l) above, or

(ii) X and Y are different and each is one selected from (a)-(l) above;

(H) a polymer or oligomer having the general formula shown in line 3 of claim 27;

(I) a polymer or oligomer having the general formula shown in line 4 of claim 27;

(J) a polymer or oligomer comprising a group as shown in claim 29;

(K) a polymer comprising a naphthalene group.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. (With respect to the various species covered within (A)-(G) above, an example of a single species is (E)(i)(b), which is a polymer or oligomer comprising a group of formula I as shown in claim 22 wherein each of A and B is C, n is 1, X and Y are the same and each is an alkoxyalkyl group.) The reply must also

identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

claims 1, 2, 5-7, 13, 14, 20 and 39-45 read on all species;

claims 8, 21, 25 and 26 read on species (A)(i)(a) through (G)(ii)(l)(l), (H), (I) and (K);

claim 22 reads on species (A)(i)(a) through (G)(ii)(l)(l), (H) and (I);

claims 9 and 24 read on species (A)-(G)(i)(i), (A)-(G)(i)(j), (A)-(G)(i)(k), (A)-(G)(i)(l), (A)-(G)(ii)(i)(i), (A)-(G)(ii)(i)(j), (A)-(G)(ii)(i)(k), (A)-(G)(ii)(i)(l), (A)-(G)(ii)(j)(k), (A)-(G)(ii)(j)(l), (A)-(G)(ii)(k)(l), (H), (I) and (K);

claim 10 reads on species (A)-(G)(ii)(all combinations of two different possibilities from a-l), (J) and (K);

claim 11 reads on species (A)-(G)(i)(any one of a-l) and (K);

claim 12 reads on species (E)(i)(a) through (E)(ii)(l)(l), (H), (I), (J) and (K);

claim 23 reads on species (E)(i)(a) through (E)(ii)(l)(l), (H) and (I);

claim 27 reads on species (H) and (I);

Claims 28-38 read on species (J).

Claims 3, 4 and 15-19 are not included in the above list because it is not clear to the examiner if the group(s) specified in these claims are groups which will remain in the final product, or if the group(s) are removed in the reaction process. If the specified group(s) do not remain in the final product, then claims 3, 4, 15 and 18 appear to read on all species, claim 16 appears to read on species (E)(i)(a) through (E)(ii)(l)(l), (H), (I), (J) and (K), and claim 17 appears to read on (E)(i)(a) through (E)(ii)(l)(l), (H), (I) and (J).

The following claims are generic: 1, 2, 5-7, 13, 14, 20 and 39-45.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

There is no significant structural element in common between the various combinations of arylene group(s), heteroarylene group(s) and substituents, and thus lack of unity exists between the various combinations.

No telephone call was made to request an oral election to the above restriction requirement due to the complexity of the requirement.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined (as well as an election of species) even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
September 21, 2004



MARIE YAMNITZKY  
PRIMARY EXAMINER

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